Revising and Updating *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996*

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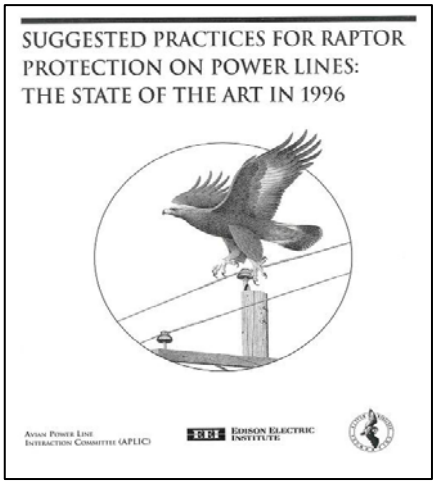
The Issue



Bird deaths from power line electrocution were first documented in the 1920s, at a time when the high-tech, expansive network of power lines that supports our economy and lifestyle today was only a dream. Since that time, the research directed at preventing those electrocutions has grown and developed along with the United States' electric grid. Although many avian/power line electrocution issues have been identified and resolved, raptors have presented a special challenge to researchers in this field. Biological and behavioral factors unique to raptors put them at greater risk for electrocution from electric utility structures and lines than most birds.[1]

To address raptors' special needs and provide guidelines for electric utilities working to address the problem, *Suggested Practices for Raptor Protection on Power Lines* was first published in 1975,[2] later updated in 1981,[3] and most recently revised in 1996 by Edison Electric Institute (EEI) and the Avian Power Line Interaction Committee (APLIC) in collaboration with the Raptor Research Foundation.[4] The 1996 version (which is recognized internationally by researchers, industry, policymakers, and the public) presents the history and successes of more than two decades of research and implementation of solutions to avian electrocutions. It examines the history of raptor/power-line interactions from biological and electrical perspectives and proposes specific solutions for reducing avian-caused electrical outages and avian fatalities

[1] Hunting, Kevin. December 2002. *A Roadmap for PIER Research on Avian Power Line Electrocution in California.* California Energy Commission. P500-02-072F. www.energy.ca.gov/reports/2002-12-24_500-02-072F.PDF.
[2] Miller, A. D., E. L. Boeker, R. S. Thorsell, and R. R. Olendorff. 1975. *Suggested Practices for Raptor Protection on Power Lines.* Edison Electric Institute, Washington, D.C., and Raptor Research Foundation, Provo, Utah.
[3] Olendorff, R. R., A. D. Miller, and R. N. Lehman. 1981. *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1981*. Raptor Research Foundation., St. Paul, Minn.
[4] Avian Power Line Interaction Committee (APLIC). 1996. *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996.* Edison Electric Institute, Raptor Research Foundation, Washington, D.C.

through cooperative measures among electric utilities, industry, and federal and state agencies. The document provides an extensive bibliography of research on the subject as well.

To ensure that users can employ the most effective, up-to-date methods and remedies for reducing avian interactions with power lines, this reference book must be updated periodically, so that it includes the latest technologies and research results. Although APLIC members feel that it is appropriate to revise this material every five years, the latest edition is now in its seventh year. In that interval, many research results have led to more effective means of preventing avian/power line interactions.

Project Description

The PIER Environmental Area and Southern California Edison are funding this effort and collaborating with APLIC members to revise and update *Suggested Practices for Raptor Protection on Power Lines.* The revised version will enable concerned parties to access the most recent information on available methods and tools aimed at reducing raptor electrocutions—all from one convenient source.

The APLIC project team will survey experts on raptor electrocution to gather input on guide section changes, information gaps, updates, and improvements. The team will compile this information, research the recommended changes, prepare new text and graphics, and update older figures. It will also update the bibliography by adding research published over the last seven years regarding negative avian interactions with electric power structures.

The updated edition will contain decades of information regarding raptor electrocution, and will be available in print or compact disc (CD) directly from EEI and APLIC, as well as from other cooperating utilities. Because the broad dissemination of this material could lead to more raptor-safe electric utility structures worldwide, APLIC will also provide a free PDF version that will be downloadable from various collaborating Web sites. All formats will be available in English and Spanish.

PIER Program Objectives and Anticipated Benefits for California

This project offers numerous benefits and meets the following PIER program objectives:

- **Providing environmentally sound and safe electricity.** An revised version of *Suggested Practices for Raptor Protection on Power Lines* will provide concerned parties with up-to-date, comprehensive guidelines and recommendations that can be used to reduce raptor electrocution risk.

- **Providing reliable electricity.** Lowering the incidence of raptor electrocution by sharing vital information on technology and methods to utilities will in turn lower the incidence of power outages associated with raptors.

- **Providing affordable energy services.** This publication will improve the energy cost/value of California's electricity by providing utilities with the most current information on methods and technology available, enabling them to choose appropriate and proven techniques and products to reduce negative interactions between power

structures and raptors. The far-reaching accessibility of the digital version (at no cost to users) further increases its value.

Results

The revised document was presented in a workshop at the Raptor Research Foundation's annual North American meeting in November 2004. The book is available online (see below).

Final Report

This final publication for this work, *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (CEC-500-2006-022), is posted on the Energy Commission website at www.energy.ca.gov/publications/searchReports.php.

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